

PATENT ABSTRACTS OF JAPAN

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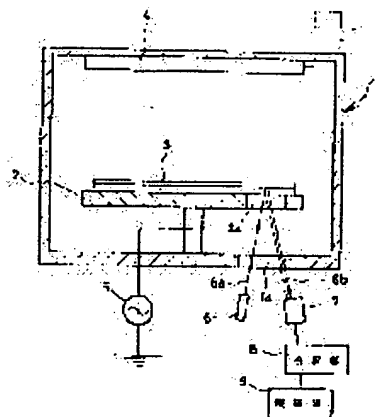
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(54) METHOD AND APPARATUS FOR TREATMENT

(57)Abstract:

PURPOSE: To enhance a throughput and to reduce the defect of a product by a method wherein physical properties of a substrate are measured from the rear side of the substrate and at least one out of the film thickness and the film quality of a thin film is detected while the properties are being processed.

CONSTITUTION: The state of reflected light, diffracted light or scattered light 6b generated when the rear of a substrate 3 is irradiated with inspection light 6a through observation windows 1a and 2a is changed every moment; and a detector 7 analyzes a change in the reflected light, diffracted light or scattered light 6b in real time; the change is operated as, e.g. information on the current film quality, the current film thickness and the like of a thin film 3a on the substrate 3 and is transmitted to a control part 9. Whether the film thickness of the thin film 3a being formed on the substrate 3 has reached a prescribed value, whether the film quality is maintained in a desired state and the like are always monitored. The degree of vacuum at the inside of a treatment chamber 1, the pressure of a gas supplied to the inside of said treatment chamber 1, the high-frequency electric power applied across a target 4 and a stage 2, the heating temperature of the substrate 3 on the stage 2 and the like are controlled properly as required.



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